CITY OF DRIGGS

OFFICE OF MAYOR HYRUM F. JOHNSON

'The Heart of Teton Valley'
Inc. 1910

September 5, 2017

Mr. David Domingo
Mr. Chris Bellovary
US Environmental Protection Agency, Region 10
1200 Sixth Avenue, Suite 900
Seattle, Washington, 98010-3140

RE: Summary of options to remediate Ammonia violations at Driggs WWTP.

Dear David,

Per our conversation of August 3rd, I am submitting the following as potential options to remediate our ongoing discharge permit violation. This list is very early stage at this point, with no particular priority, except as detailed below. If another promising solution arises, we will certainly consider it as well, but at this point our process will be as follows.

1. Fix existing plant: This represents our ongoing efforts to identify a point source of damaging influent via structured testing throughout the collection system. Due to delays in receiving the testing instrument, we have only just begun this process this week. We had anticipated beginning this testing several months ago.
    a. Cost: No additional capital costs, but ongoing manpower, testing time, & materials.
    b. Timing: up to 8 months
    c. Estimated Success: 10%

Concurrent with this testing, we are beginning to reseed our plant with nitrifying bacteria supplement recommended by the technology owners, who have recently conducted a site visit. If we find that this is successful in the short term, but doesn't remain viable, we will evaluate the following option of periodic ongoing supplementation:

2. Continuously add/supplement nitrifying bacteria
    a. Cost: $32,000/Year (20yr cost=$650,000) plus manpower
    b. Timing: Pilot project starting next week, 4-months
    c. Estimated Success: 50%

Should the above options fail to bring our plant into compliance in a long-term operational manner, we will be prepared to implement one of the following (or similar) 'bolt on' solutions. We did a very small scale pilot of #5 below, which though promising, would require more extensive testing before deeming it viable.

It should be noted that the following costs are additive to what we have already expended in manpower and material, both over the last four years, as well as in the above trials.

3. Convert Plant to Activated Sludge add clarifiers
    a.Cost: $2,000,000
    b.Timing: 12-18 months
    c.Estimated Success: 75%

4. ENPAR (Electro-Chemical Reactor)
    a. Cost: $6,080,000
    b. Timing: 12-18 months
    c. Estimated Success: 85%

5. Nexom/Bluewater: SAGR Plant
    a. Cost: $2,000,000
    b. Timing: 12-18 Months
    c. Estimated Success: 75%

6. Clearas
    a.Cost: $3-6 million
    b.Timing: 18 months (including design & pilot plant)
    c.Estimated success: 75%

David, we are confident that one, or some combination of the above solutions will be able to bring our plant into compliance. Naturally there is much research we still must complete to make an informed decision or investment. Additionally, any of the options 3-5 would require additional funding to implement. The above cost estimates are very preliminary estimates, and may not include added manpower required to manage and operate additional equipment. In short, it is difficult to predict what our actual worst-case scenario would be on cost, but it could easily approach $10 million or more in capital expenditures before we are done if we must combine multiple options to achieve our permit. Our hope is to resolve this at much lower cost.

Again, I thank you for the cooperative manner in which you've worked with us on this. The City of Driggs is extremely concerned about resolving our permit violation, and will continue to chase this problem until it is permanently put to rest.

Please let me know if you need anything further.

Sincerely,

Mayor Hyrum F. Johnson

cc: City Council
cc: others